

Title (EN): **Optimalization for precision agriculture - application map**

Title (SK): **Optimalizácia pre presné poľnohospodárstvo – aplikačná mapa**

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Scientific projects:

Main customer: AgrotradeGroup. spol. s.r.o., Geokart s.r.o.

Annotation: Agriculture now has a wealth of new information and data. Based on this, advanced automated machines can use the most accurate and correct amounts of active substances and provide crop protection. These technologies are quite sophisticated and their current exploitation for precision agriculture in our country is not sufficient. Interdisciplinary cooperation of experts from different fields leads to more efficient use of these technologies. The proposed procedure of data processing and application maps creation enables optimization of dosage with respect to technical, soil and phytological requirements. Early detection of crop damage significantly reduces the time required for the timely application of appropriate protective substances and chemicals. Fast intervention is only applied to infested zones, resulting in significantly reduced cost of chemicals.

Another impact is the improvement of environmental care, which has the potential to meet the requirements of the Strategy for Smart Specialization of the Slovak Republic (RIS3).

Main scientometric outputs:

1. FAJDEL, Valentín - ZELENKA, Ján - BUDINSKÁ, Ivana - MOJŽIŠ, Ján, info - KASANICKÝ, Tomáš. Ako drony pomôžu poľnohospodárom. In *Agromagazín* : mesačník o ekonomike a financiách v agrosektore, 2018, roč. XX, č. 11, s. 30-32. ISSN 1335-2261. Typ: BDF
2. ZELENKA, Ján - FAJDEL, Valentín - BUDINSKÁ, Ivana - KOZÁK, Vladimír. Optimizing of a flight altitude of a drone. In *AIFICT 2018 : 1st International Conference Applied Informatics in Future ICT*. Editors Tomáš Páleník, Juraj Štefanovič. - Bratislava : Slovak Chemical Library, Bratislava, 2018, p. 68-72. ISBN 978-80-89597-87-1.(AIFICT 2018 : 1st International Conference Applied Informatics in Future ICT). Typ: AFD